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REMARKS / DISCUSSION OF ISSUES

Claims 1-22 are under consideration presently. Claims 1, 9, 19 and 21 are independent claims. The claims under consideration are not amended in this Reply under Rule 116, and thus are not reproduced herein in keeping with Rule 121.

Rejections under 35 U.S.C. § 102

Claims 1-22 are rejected under 35 U.S.C. § 102(e) as being anticipated by *Tucker, et al.* (U.S. Patent 7,027,743). For at least the reasons provided herein, Applicants respectfully submit that this rejection is improper and that claims 1-22 are patentable over the applied art.

At the outset Applicants rely at least on the following standards with regard to proper rejections under 35 U.S.C. § 102. Notably, a proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

Claim 1:

Claim 1 is drawn to a method for synchronizing an operating characteristic of a tunable device with the wavelength of a local oscillator signal. Claim 1 features, *inter alia*:

"*...generating a synchronization signal...wherein said synchronization signal is derived in an open-loop manner from a portion of said local oscillator signal that has* ***not optically interacted with said tunable device.***"

As described in the filed application, the tracking of a swept local oscillator (LO) signal does not rely upon feedback from the optical interaction between the LO and a tunable device. (Kindly refer to paragraph [006] of the filed application for support.)

Tucker, et al. fails to disclose at least the open-loop function as recited in claim 1. As noted in the Response under Rule 111 dated November 27, 2006, *Tucker, et al.* requires optical interaction between the swept LO signal and the optical pre-selector. Applicants noted that the description of Figs. 5-19 described this interaction, and noted with particularity this interaction as described in connection with Fig. 5.

The present Office Action alleges that Fig. 19 of *Tucker, et al.* shows the LO signal from the LO 1905 has not optically interacted with the tunable device 1914, which is an optical preselector. Applicants respectfully disagree.

The optical heterodyne detection system of Fig. 19 of *Tucker, et al.* is the same as the system of Fig. 17 modified to include a clock source. The description of the interaction of the LO signal with the optical preselector is provided in connection with Fig. 17. In particular, a portion of the swept LO signal is tapped from the swept LO at coupler 1774. This tapped portion of the swept LO signal is then delayed by the signal delay unit 1772. The delayed portion of the swept LO signal is then directed to the optical pre-selector in a transmission direction that is opposite to the direction of the input signal. A portion of the filtered and delayed LO signal that is output from the optical preselector is tapped off from the input fiber at the second optical tap 1736 and input to the controller. The controller utilizes the tapped portion of the filtered and delayed LO signal to cause the center frequency of the optical preselector to track the frequency of the swept LO. (Applicants direct the Examiner's attention to column 15, line 38 through column 16, line 16; and column 16, lines 33-42 of *Tucker, et al.*, for support for their position.)

Clearly, the reference to *Tucker, et al.* discloses a closed-loop technique, which applies a portion of the LO signal (i.e., the delayed LO signal) to synchronize the optical preselector center frequency to the swept LO signal. This is in contrast to the method of claim 1 wherein the *wherein said synchronization signal is derived in an open-loop manner from a portion of the local oscillator signal **has not optically interacted with the tunable device**.* Accordingly, and for at least the reasons set forth above, Applicants respectfully submit that the reference to *Tucker, et al.* fails to disclose at least one feature of claim 1. Therefore, a prima facie case of anticipation based on the applied art cannot be made and claim 1 is patentable over the applied art.

Claims 2-8:

Claims 2-8 depend from claim 1. Therefore, claims 2-8 are patentable for at least the same reasons.

Claims 9, 19 and 21:

Claims 9, 19 and 21 each include features similar to the features of claim 1 noted above. Accordingly, for at least the reasons provided above in connection with the traversal of the rejection of claim 1, Applicants respectfully submit that the applied art fails to disclose at least one feature of each of claims 9, 19 and 21. Therefore claims 9, 19 and 21 are patentable over the applied art.

Claims 10-18; 20; and 22

Claims 10-18; 20; and 22 depend from claims 1, 15 and 21, respectively. Therefore, claims 10-18 are patentable for at least the same reasons as claim 1; claim 20 is patentable for at least the same reasons as claim 20 and claim 22 is patentable for at least the same reasons as claim 21.

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Conclusion

In view the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or credit any overpayment to Deposit Account Number 50-0238 for any additional fees, including, but not limited to, the fees under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:
Agilent Technologies, Inc.

by: William S. Francos (Reg. No. 38,456)
Date: April 23, 2007

Volentine Francos & Whitt, PLLC
Two Meridian Blvd.
Wyomissing, PA 19610
(610) 375-3513 (v)
(610) 375-3277 (f)